

# **DEBRIS EXAMINATION REPORT**

# **SAFETY INVESTIGATION FOR MH370**

Malaysia Airlines MH370 Boeing B777-200ER (9M-MRO) 08 March 2014

Identification of Debris (Item 7 in the "Summary of Possible MH370 Debris Recovered") recovered at Anvil Bay, Chemucane, Mozambique on 30 April 2016

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#### 1.0 Introduction

This item was recovered at Anvil Bay, Chemucane, Mozambique on 30 April 2016. It is identified as Item No. 7 of the items recovered; refer to the "Summary of Possible MH370 Debris Recovered".



The item was brought back to Malaysia for identification and further examination by the "Malaysian ICAO Annex 13 Safety Investigation Team for MH370".

#### 2.0 Part Characteristics

The part was a typical Carbon Fiber Reinforced Plastic (CFRP) with non-metallic honeycomb core. The part was triangular in shape and approximately 22 inches at its longest edge. It weighed 0.31 Kg. The white paint on both sides of the debris had faded. It had an 'end of part' which had a distinctive corner radius but the length of the possible flange could not be determined since it had fractured immediately after the radius. There were no identification numbers on the part. The overall plan form of the part is not flat, it had a curvature.

## 3.0 Identification

The part was taken to a B777-200ER, formerly operated by Malaysia Airlines (MAS), undergoing a maintenance check at Subang, Malaysia, for identification purposes.

The exact location of the part on the aircraft could not be identified since it did not have any markings or numbers and there were no peculiar features which could match it on the aircraft except for one edge of the part which had a distinct radius, which suggested that the joining part would be at an angle. While the construction was similar to a B777 part, there was no conclusive evidence to determine the origin of this part with respect to the aircraft.



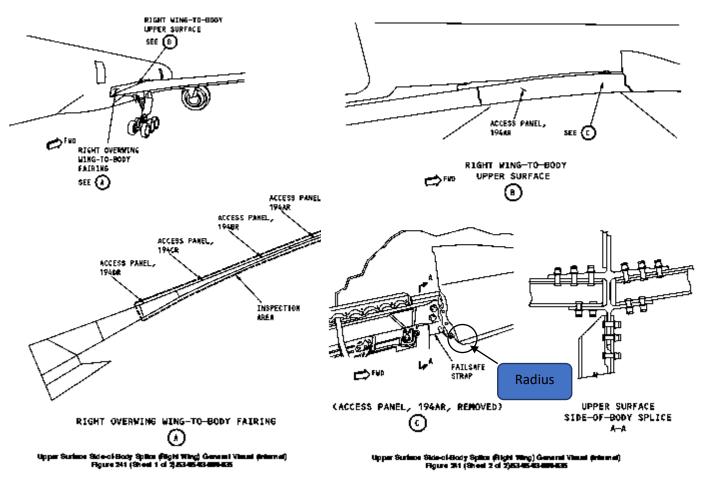




After review of the B777 Illustrated Parts Catalogue (IPC), the most possible location of the part was determined to be the wing to fuselage body fairing. The location of where the part was

found, considering that MH370 (aircraft registered as 9M-MRO) ended its flight in the South Indian Ocean, is consistent with the drift path modeling produced by the Commonwealth Scientific and Industrial Research Organisation (CSIRO). This suggests that the part is likely from MH370 given that the likelihood of it originating from another source is quite remote. The Australian Transport Safety Bureau (ATSB) reports on the drift modeling can be found at <a href="http://www.atsb.gov.au/media/5772107/ae2014054">http://www.atsb.gov.au/media/5772107/ae2014054</a> final-first-principles-report.pdf and <a href="http://www.atsb.gov.au/media/5771939/ae-2014-054">http://www.atsb.gov.au/media/5771939/ae-2014-054</a> mh370-search-and-debrisupdate 2nov-2016 v2.pdf.

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#### 4.0 Structure Examination

The part had fractured at all sides. One side had fractured immediately after the corner radius. The fibres appeared to have been pulled away and there were no visible kink on the fibres. The core was not crushed; it had fractured along the skin fracture line.



## 5.0 Conclusion

There is no conclusive evidence to determine the origin of this part with respect to the aircraft however based on its features it is likely to be a part of a panel of the wing to body fairing on a B777 aircraft. From the location where it was found, and being consistent with the drift path modeling for debris from an aircraft ending its flight in the South Indian Ocean, it is likely that it is from MH370 (aircraft registered as 9M-MRO).